

ISSUE 9; July 2016

### Description

- 12 x 5mm SMD crystal  
Ceramic package with a resin sealed ceramic lid, hermetically sealed.

### Frequency Parameters

- Frequency: 3.2MHz to 70.0MHz
- Frequency Tolerance:  $\pm 20.00\text{ppm}$  to  $\pm 50.00\text{ppm}$
- Frequency Stability:  $\pm 15.00\text{ppm}$  to  $\pm 50.00\text{ppm}$
- Ageing:  $\pm 5\text{ppm}$  max per year at 25°C

### Electrical Parameters

- Load Capacitance (CL): 16.0pF to 32.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 100µW max

### Operating Temperature Ranges

- 10 to 60°C
- 20 to 70°C
- 40 to 85°C

### Environmental Parameters

- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)
- Storage Temperature Range: -55°C to 125°C

### Ordering Information

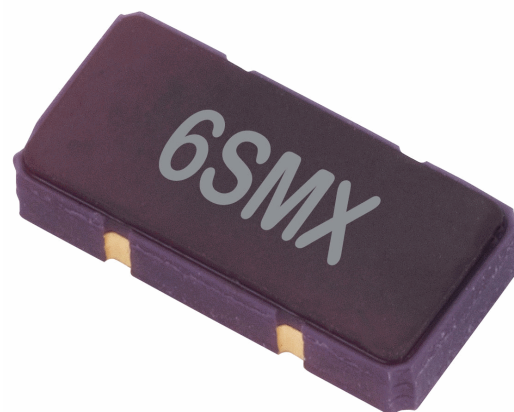
- Frequency\*
- Model\*
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- Example  
10.0MHz 6SMX  
50/50/-20 to 70C/16 FUND

### Compliance

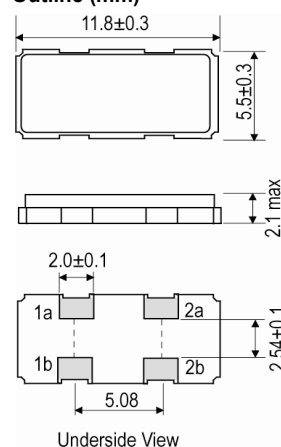
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

- Pack Style: Bulk: Loose in bulk pack  
Pack Size: 100
- Pack Style: Reel: Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

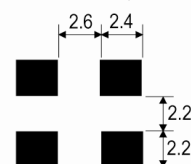


### Outline (mm)



Pad Connections  
1a & 1b. Crystal  
2a & 2b. Crystal

### Solder Pad Layout



### Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
3.2MHz	3.499999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	200
3.5MHz	3.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	140
4.0MHz	4.399999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	120
4.4MHz	4.899999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	100
4.9MHz	5.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	80
6.0MHz	6.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	60
7.0MHz	7.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	50
8.0MHz	10.999999MHz	-10 to 60 -20 to 70 -40 to 85	±20 ±20 ±30	Fundamental	45
11.0MHz	11.999999MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	Fundamental	40
12.0MHz	14.999999MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	Fundamental	35
15.0MHz	26.999999MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	Fundamental	30
27.0MHz	70.0MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	3rd Overtone	100

\*Stability Maximum values ±50ppm

This document was correct at the time of printing; please contact your local sales office for the latest version.

[Click to view latest version on our website.](#)

Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)